

### III. REMARKS

Claims 1, 4, 21-22, 34-36 and 43-45 are pending in this application. The following remarks are being made to facilitate early allowance of the presently claimed subject matter. Applicants do not acquiesce in the correctness of the objections and rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 1, 4, 21-22 and 44 have been allowed. Applicants gratefully appreciate the allowance of these claims.

In the Office Action, the amendment to the specification filed on 02/04/04 was objected to under 35 U.S.C. § 132 because it allegedly introduces new matter into the disclosure. Specifically, the Office asserted that the added material - “[a] single insulating layer 24 having a portion that extends on two opposing vertical sides of a second portion of the spacer 16 and contacts the gate electrode 14” - is not supported by the original disclosure. Applicants respectfully traverse this objection.

As an overview of the Office's logic, in the response to the prior Amendment filed (with RCE) on 6/30/04, the Office concluded that FIG. 19 did not support the features in the above revision to the specification because “it is not true all the time [that the spacer was a single layer and was formed around the gate electrode].” *Office Action* at page 5, (hereinafter referred to as statement 1). The Office also reasoned that “[f]irst, the specification and the figures do not disclose or show that (the spacer was a single layer and was formed around the gate electrode) is the case” and “[s]econd, the spacer can be two separate spacers and formed on two sides of the gate electrode.” *Id.* (hereinafter referred to as statement 3) (emphasis ours). In a telephonic interview, the Office suggested changing claim 34 to recite two separate spacers, which was

rejected. Applicants respectfully submit that the Office's reasoning is faulty, as will be described below.

Referring to each of the Office's statements 1-3, Applicants will explain the shortcomings of the Office's conclusion. With regard to statement 2 first, Applicants strongly disagree that "the [original] specification and the figures [did] not disclose or show [that the spacer is a single layer and is formed around the gate electrode] is the case." *Office Action* at page 5 (statement 2). To the contrary, Applicants submit that the original specification clearly disclosed the features included in the revision to the specification and thus provides antecedent for the revision. With regard to the text, paragraph 23 states that "vertical structure 10 includes at least one spacer 16," which clearly disclosed that a single spacer is possible. The terms "spacer(s) 16" or "spacer(s) 116" are used throughout the specification to reiterate this point. FIG. 19 also supports this recitation. *See*, attached photocopy of FIG. 19 for illustration. Specifically, the left-most side of FIG. 19 shows a single insulating layer 24 having a portion that extends on two opposing vertical sides of a second portion of the spacer 16 and contacts the gate electrode 14. *See*, *Id.*, (left part of spacer is circled and dotted to show the claimed features). Fig. 19 also shows "a contact having a portion that extends on two opposing vertical sides of a first portion of the spacer, wherein the contact contacts a diffusion adjacent the gate electrode[.]" *See*, FIG. 19 (right part of the spacer is circled to show the claimed features).

Referring to statement 1, Applicants submit that it is illogical to both conclude that FIG. 19 of the original application may be interpreted to disclose two situations relative to spacers, i.e., disclosure of a single spacer having a first and a second portion and two separate spacers, AND that the specification and figures do not disclose or show one of the situations (statement 2). Furthermore, Applicants respectfully submit that it is incomprehensible why the Office

concludes that only two separate spacers are possible, when one with skill in the art would very easily recognize that either situation is possible. In fact, Applicants submit that the claimed recitation is the more common situation. Applicants did not do more to specify that the spacer is a single one formed around the gate electrode in the original specification and FIG. 19 because Applicants wrote the application knowing that one with ordinary skill in the art would recognize that the claimed situation is possible. The fact that Applicants recite one of two "possible" interpretations of a disclosed figure in a claim, does not make that (more probable) interpretation new matter.

Second, by asserting that "it is not true all the time" (*Office Action* at page 5, statement 1), the Office admits that the new recitation is true some of the time, i.e., the spacer can be a single layer and formed around the gate electrode. Logically, this means the added text is supported by the specification, and not new matter. The fault in the Office's logic here is that: if the specification discloses two possible structures, it does not mean that additional textual disclosure to explicitly state one of those structures is new matter. The Office's reasoning could be summarized as: "since the specification is open to two equally possible interpretations, the Applicants interpretation is excluded as new matter, but the Office's is recommended." The fact remains that the specification still discloses the subject matter - it's not new matter.

Finally, Applicants submit that the Office's conclusion that "the spacer can be two separate spacers and formed on two sides of the gate electrode," fails to support the Office's conclusion that new matter exists. *Office Action* at page 5 (statement 3)(emphasis added). Again, if the specification and, especially FIG. 19, "can" disclose two spacers, it logically follows that it can also disclose a single spacer scenario, which obviates any possible new matter. Applicants also note that the two references that the Office cites to teach two spacers on

two sides of a gate electrode do not even use the term "spacer." (Based on a text-based search of the patents using the USPTO search engine). In contrast, the term "oxide sidewall" or "sidewall oxide filament" are used, perhaps to differentiate from the more common enclosed "spacer" claimed. Applicants submit that the prior art is probably replete with references to spacers that do not differentiate between a single spacer scenario and a multiple sidewall scenario. For example, even the Wei reference used by the Office to reject the pending claims does not differentiate between spacers that surround a gate electrode and sidewalls that extend along a length of a gate electrode. In view of the foregoing, Applicants respectfully request acceptance of the amendment to the specification, and respectfully request withdrawal of the objection.

In the Office Action, claims 34-36, 43 and 45 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. Given that the amendment to the specification filed on 02/02/04 is acceptable for the reasons stated above, Applicants submit that the specification describes the subject matter in those claims in such a way as to reasonably convey to one skilled in the relevant art that Applicants, at the time the application was filed, had possession of the claimed invention. See also paragraph 37 of the specification (FIG. 19 discussion), which discloses a contact contacting a substrate and extending on two opposing vertical sides of a first portion of the spacer 16, which provides support to claims 34-36, 43 and 45. In view of the foregoing, Applicants respectfully request withdrawal of the rejection based on 35 U.S.C. 112, first paragraph.

In the Office Action, claims 34-36 were rejected under 35 U.S.C. 102(b) as being anticipated by Wei (PN 5,369,303). Applicants submit that the claims 34-36 are allowable for the reasons stated below and thus respectfully request withdrawal of the rejections.

With regard to claim 34, Wei fails to disclose, *inter alia*, "an insulating layer having a portion that extends on two opposing vertical sides of a second portion of the spacer and contacts the gate electrode[,] and a masking layer contacting the gate electrode for insulating the gate electrode from the contact[,]" as recited in claim 34. (Emphasis added.) Wei discloses a first insulating layer 44 that contacts two opposing vertical sides of a spacer 40. *See* FIG. 9 of Wei. The first insulating layer 44, however, does not contact the gate electrode 16, as recited in claim 34. *Id.* In Wei, a second insulating layer 32 is positioned between the first insulating layer 44 and the gate electrode 16. *Id.* That is, in Wei, only the second insulating layer 32 contacts gate electrode 16. In contrast, the claimed invention includes, *inter alia*, both an insulating layer 24 and a masking layer 34 that contact the gate electrode for insulating the gate electrode from the contact. *See*, attached photocopy of FIG. 19 for illustration. The Office's evaluation on page 4 of the Office Action overlooks the recitation that the insulating layer contacts the gate electrode. In addition, assuming *arguendo* the first insulating layer 44 and the second insulating layer 32 of Wei were considered a single layer (which contacts the gate electrode), there would be no disclosure of "a masking layer contacting the gate electrode for insulating the gate electrode from the contact[,]" as recited in claim 34 of the current invention. That is, Wei lacks either "an insulating layer having a portion that extends on two opposing vertical sides of a second portion of the spacer and contacts the gate electrode" or "a masking layer contacting the gate electrode for insulating the gate electrode from the contact." In view of the foregoing, Applicants respectfully request withdrawal of the rejection of claims 34-36 over Wei.

With regard to the Office's arguments regarding the Wei rejection, Applicants note that the FIG. 20 embodiment is not being claimed. With regard to the observation that "contact (50)

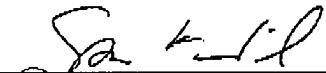
contacts the whole side of the spacer (16) so there is no exist (sic) of the insulating layer,"

Applicants submit that the insulating layer 24 is on the opposite side of the gate 14.

Applicants respectfully submit that the application is in condition for allowance. Should the Examiner believe that anything further is necessary to place the application in better condition for allowance, he is requested to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

Date: 8/23/04

  
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Attachment

Disclaimer: Applicants note that this attachment is for sole purpose of illustrating the arguments in page 5, paragraph 3 of the Amendment.

Applicants submit that this does not constitute a amendment to the drawings.

16

A Second portion of spacer 16

A contact having a portion that extends two portion that extends on two opposing vertical sides of a first portion of the spacer 16

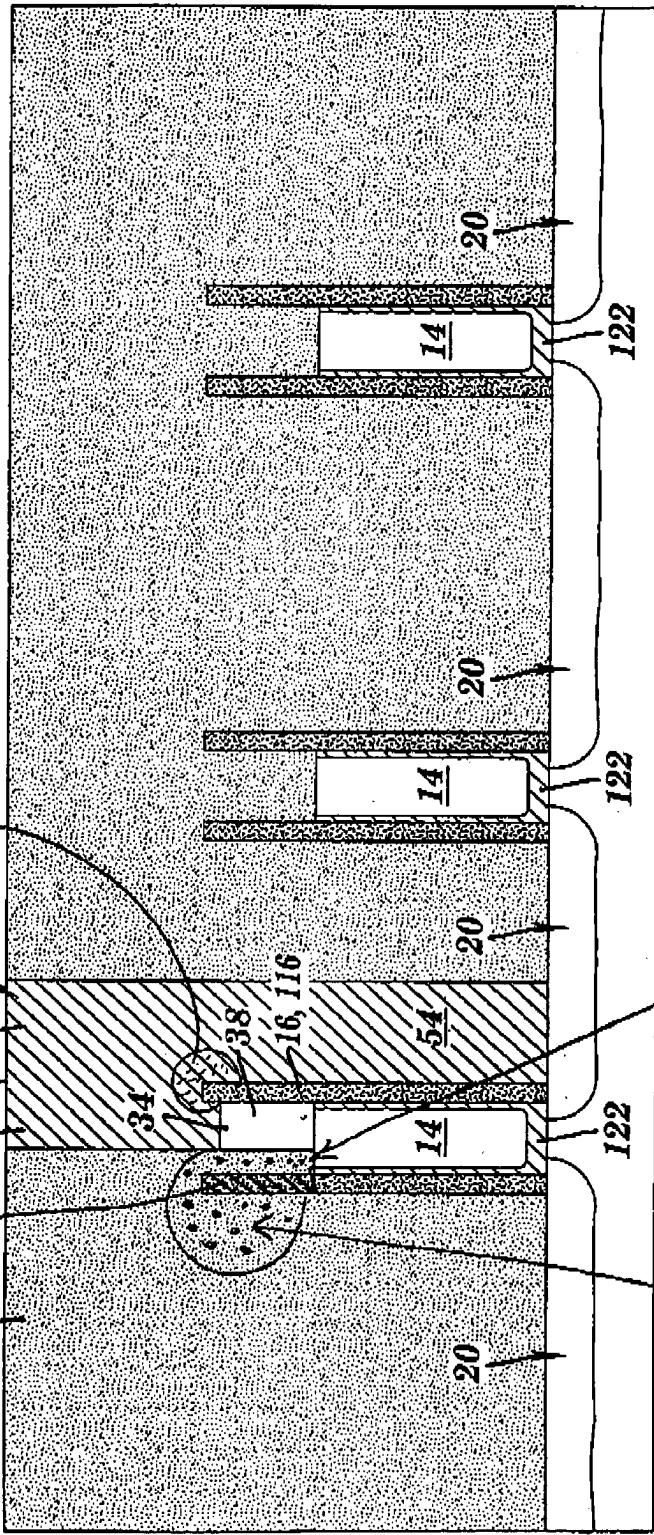
24

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**FIG. 19**

insulating layer 24 having a portion that extends on two portion that extends on two opposing vertical sides of a portion of the spacer 16